```
=> e eyles james edward/au
E1            1     EYLES J W/AU
E2           10     EYLES JAMES E/AU
E3            9 --> EYLES JAMES EDWARD/AU
E4            1     EYLES JAMIE ROBERT/AU
E5            1     EYLES JEREMY ARNOLD/AU
E6           37     EYLES JIM E/AU
E7            3     EYLES JO/AU
E8            3     EYLES JO L/AU
E9            4     EYLES JOANNE L/AU
E10          33     EYLES JOHN/AU
E11           8     EYLES JOHN D/AU
E12           2     EYLES JOHN G/AU

=> s e2-e3
L1           19 ("EYLES JAMES E"/AU OR "EYLES JAMES EDWARD"/AU)

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2           12 DUP REM L1 (7 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 12 ANSWERS - CONTINUE? Y/(N):y

L2   ANSWER 1 OF 12  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2007:284126  CAPLUS
TI   Adjuvanted vaccine
IN   Eyles, James Edward; Hartley, Margaret Gillian
PA   The Secretary of State for Defence, UK
SO   PCT Int. Appl., 32pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     --------------       ----   --------    -------------------     --------
PI   WO 2007028985        A2     20070315    WO 2006-GB3296          20060907
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,
             KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,
             MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
             RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
PRAI GB 2005-18203        A      20050907
     GB 2005-18305        A      20050908
AB   This invention relates to new immunogenic compns. and vaccines suitable
     for preventing or treating tularemia.

L2   ANSWER 2 OF 12  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2006:945857  CAPLUS
DN   145:321378
TI   Anthrax vaccine formulation containing Bacillus spore-coat associated protein
     N as adjuvants
IN   Flick-Smith, Helen Claire; Eyles, James Edward; Waters, Emma
     Louise; Walker, Nicola Jane; Williamson, Ethel Diane; Baillie, Leslie
     William Jones; Miller, Julie
PA   The Secretary of State for Defence, UK
SO   PCT Int. Appl., 12pp.
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CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006095176	A2	20060914	WO 2006-GB838	20060310

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI GB 2005-4940 A 20050310

AB Spore coat-associated proteins from members of Bacillus genera, and in particular spore-coat associated protein N (CotN), have utilization as adjuvants in vaccine formulations. The vaccine formulations most likely contain a virulence factor of bacterial origin, which in the case of Bacillus genera is the protective antigen.

L2 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:918334 CAPLUS
DN 145:321639
TI Pharmaceutical microparticles for single-stranded RNA
IN Eyles, James Edward; Westwood, Angela; Elvin, Stephen J.; Healey, Gareth David
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 37pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2006092607	A1	20060908	WO 2006-GB751	20060302

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI GB 2005-4276 A 20050302
GB 2005-11801 A 20050610

AB A microparticle composition is described comprising a biodegradable polymer, an immunogenic single-stranded RNA (ss-RNA) material, a biol. active macromol. and a stabilizing agent, wherein the outer surface of the resulting microparticle is free from adsorbed mols. The composition is effective in providing an immune response in dendritic cells, in particular by stimulating increased production of IFN-α. Methods of production and uses for treatment of infection and cancer of pharmaceutical compns. derived from the microparticles are also claimed and described. Thus, 10 mg of polyuridylic acid (poly-U), dissolved in a 0.5 mL of water

was mixed with 125 mg of PLA dissolved in 9 mL of DCM. The resultant emulsion was added, dropwise, into a stirred secondary aqueous phase (90 mL) containing 0.1% weight/volume N-[1-(2,3-dioleoyloxy)propyl]-N,N,N-trimethylammonium chloride (DOTAP). Following solvent evaporation, hardened DOTAP-stabilized polymeric microparticles were harvested by ultracentrifugation prior to lyophilization in 1% weight/volume trehalose.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 4 OF 12 USPATFULL on STN
AN 2006:280994 USPATFULL
TI Pharmaceutical aerosol composition
IN Eyles, James Edward, Wiltshire, UNITED KINGDOM
Phillips, Gary John, Wiltshire, UNITED KINGDOM
Maidment, Michael Patrick, Wiltshire, UNITED KINGDOM
Williamson, Ethel Diane, Wiltshire, UNITED KINGDOM
PI US 2006239931 A1 20061026
AI US 2004-542449 A1 20040114 (10)
WO 2004-GB104 20040114
20051213 PCT 371 date
PRAI GB 2003-885 20030115
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, ATLANTA, GA, 30309, US
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 341
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An aerosol formulation comprising a biodegradable microsphere comprising a non-living reagent, such as a sub-unit vaccine, that produces a protective immune response in a mammal to whom it is administered. Nebulizers and inhalers containing such formulations are also described and claimed.

L2 ANSWER 5 OF 12 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 1
AN 2006:476668 BIOSIS
DN PREV200600480147
TI Protection against bubonic and pneumonic plague with a single dose microencapsulated sub-unit vaccine.
AU Elvin, Stephen J. [Reprint Author]; Eyles, James E.; Howard, Kenneth A.; Ravichandran, Easwaran; Somavarappu, Satyanarayan; Alpar, H. Oya; Williamson, E. Diane
CS DSTL, Salisbury SP4 0JQ, Wilts, UK
SJElvin@dstl.gov.uk
SO Vaccine, (MAY 15 2006) Vol. 24, No. 20, pp. 4433-4439.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English
ED Entered STN: 20 Sep 2006
Last Updated on STN: 20 Sep 2006
AB Protection against virulent plague challenge by the parenteral and aerosol routes was afforded by a single administration of microencapsulated Caf1 and LcrV antigens from Yersinia pestis in BALB/c mice. Recombinant Caf1 and LcrV were individually encapsulated in polymeric microspheres, to the surface of which additional antigen was adsorbed. The microspheres containing either Caf1 or LcrV were blended and used to immunise mice on a single occasion, by either the intra-nasal or intra-muscular route. Both routes of immunisation induced systemic and local immune responses, with high levels of serum IgG being developed in response to both vaccine antigens. In Elispot assays, secretion of cytokines by spleen and

draining lymph node cells was demonstrated, revealing activation of both Th1 and Th2 associated cytokines; and spleen cells from animals immunised by either route were found to proliferate in vitro in response to both vaccine antigens. Virulent challenge experiments demonstrated that non-invasive immunisation by intra-nasal instillation can provide strong systemic and local immune responses and protect against high level challenge. Microencapsulation of these vaccine antigens has the added advantage that controlled release of the antigens occurs in vivo, so that protective immunity can be induced after only a single immunising dose.

L2 ANSWER 6 OF 12 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
DUPLICATE 2
AN 2006:295669 BIOSIS
DN PREV200600292466
TI Protection against heterologous Burkholderia pseudomallei strains by dendritic cell immunization.
AU Elvin, Stephen J. [Reprint Author]; Healey, Gareth D.; Westwood, Angie; Knight, Stella C.; Eyles, James E.; Williamson, E. Diane
CS Biomed Sci, Dstl Porton Down, Salisbury SP4 0JQ, Wilts, UK
SJElvin@dstl.gov.uk
SO Infection and Immunity, (MAR 2006) Vol. 74, No. 3, pp. 1706-1711.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
ED Entered STN: 31 May 2006
Last Updated on STN: 31 May 2006
AB Burkholderia pseudomallei, the causative agent of melioidosis, is a gram-negative bacterium which can cause either chronic infections or acute lethal sepsis in infected individuals. The disease is endemic in Southeast Asia and northern Australia, but little is known about the mechanisms of protective immunity to the bacterium. In this study, we have developed a procedure to utilize dendritic cells in combination with CpG oligodeoxynucleotides as a vaccine delivery vector to induce protective immune responses to various strains of B. pseudomallei. Our results show that strong cell-mediated immune responses were generated, while antibody responses, although low, were detectable. Upon virulent challenge with B. pseudomallei strain K96243, NCTC 4845, or 576, animals immunized with dendritic cells that were pulsed with heat-killed K96243 and matured in the presence of CpG 1826 showed significant levels of protection. These results show that a vaccine strategy that actively targets dendritic cells can evoke protective immune responses.

L2 ANSWER 7 OF 12 USPATFULL on STN
AN 2005:208585 USPATFULL
TI Pharmaceutical composition for administration to mucosal surfaces
IN Alpar, Hazire Oya, London, UNITED KINGDOM
Eyles, James Edward, Wiltshire, UNITED KINGDOM
Williamson, Ethel Diane, Wiltshire, UNITED KINGDOM
PI US 2005181063 A1 20050818
AI US 2002-221954 A1 20010322 (10)
WO 2001-GB1248 20010322
PRAI GB 2000-6770 20000322
GB 2002-101094 20010116
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, ATLANTA, GA, 30309, US
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 474
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A pharmaceutical composition for administration to mucosal surfaces, which composition comprises a biologically active agent, a first amount of said agent being encapsulated within microspheres which comprise a polymer which has a molecular weight in excess of 94 kDa and a maximum diameter of 20 μm, and a second amount of said agent being in a form which has a higher bioavailability than said first amount. The composition is particularly useful for the intra-nasal administration of vaccines in a single shot vaccination.

L2 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:610075 CAPLUS
DN 141:145719
TI Pharmaceutical aerosol composition
IN Eyles, James Edward; Phillips, Gary John; Maidment, Michael Patrick; Williamson, Ethel Diane
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004062651	A1	20040729	WO 2004-GB104	20040114
	WO 2004062651	A8	20040930		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
	AU 2004204392	A1	20040729	AU 2004-204392	20040114
	CA 2513279	A1	20040729	CA 2004-2513279	20040114
	EP 1643979	A1	20060412	EP 2004-701996	20040114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	JP 2006515354	T	20060525	JP 2006-500205	20040114
	US 2006239931	A1	20061026	US 2005-542449	20051213
PRAI	GB 2003-885	A	20030115		
	WO 2004-GB104	W	20040114		

AB An aerosol formulation comprising a biodegradable microsphere comprising a non-living reagent, such as a sub-unit vaccine, that produces a protective immune response in a mammal to whom it is administered is described. Nebulizers and inhalers containing such formulations are also described and claimed. For example, polylactide (Resomer L210) microspheres were loaded with either bovine serum albumin or recombinant V antigen (rV) from Yersinia pestis using a modified double-emulsion solvent evaporation process. Microspheres had a loading of 3.8% (BSA) and 3.3% (rV), and were capable of delivering antigen to the lung and lung lymph node by aerosolization.

L2 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:610031 CAPLUS
DN 141:145715
TI Use of a microcapsule for administration of medicament to antigen-presenting cells
IN Westwood, Angie; Healey, Gareth David; Eyles, James Edward; Williamson, Ethel Diane
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004062559	A2	20040729	WO 2004-GB114	20040114

WO 2004062559 A3 20040902
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ
PRAI GB 2003-881 A 20030115
AB The present invention relates to the use of a microcapsule in the preparation of a medicament for administration to an antigen-presenting cell such as a dendritic cell of a patient, for the activation of the immune response of said patient. APC treated using the microcapsule may be used in prophylaxis or therapy, for example to protect a patient against infection by a pathogen.

L2 ANSWER 10 OF 12 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 3
AN 2004:376867 BIOSIS
DN PREV200400379800
TI Induction of protective immunity against lethal anthrax challenge with a patch.
AU Kenney, Richard T. [Reprint Author]; Yu, Jianmei; Guebre-Xabier, Mimi; Frech, Sarah A.; Lambert, Adam; Heller, Barbara A.; Ellingsworth, Larry R.; Eyles, James E.; Williamson, E. Diane; Glenn, Gregory M.
CS IOMAI, 20 Firstfield Rd,Ste 250, Gaithersburg, MD, 20878, USA
rkenney@iomai.com
SO Journal of Infectious Diseases, (August 15 2004) Vol. 190, No. 4, pp. 774-782. print.
CODEN: JIDIAQ. ISSN: 0022-1899.
DT Article
LA English
ED Entered STN: 22 Sep 2004
Last Updated on STN: 22 Sep 2004
AB Background. Transcutaneous immunization (TCI) is a needle-free technique that delivers antigens and adjuvants to potent epidermal immune cells. To address critical unmet needs in biodefense against anthrax, we have designed a novel vaccine delivery system using a dry adhesive patch that simplifies administration and improves tolerability of a subunit anthrax vaccine. Methods. Mice and rabbits were vaccinated with recombinant protective antigen of Bacillus anthracis and the heat-labile toxin of Escherichia coli. Serologic changes, levels of toxin-neutralizing antibodies (TNAs), and pulmonary and nodal responses were monitored in the mice. A lethal aerosolized B. anthracis challenge model was used in A/J mice, to demonstrate efficacy. Results. The level of systemic immunity and protection induced by TCI was comparable to that induced by intramuscular vaccination, and peak immunity could be achieved with only 2 doses. The addition of adjuvant in the patch induced superior TNA levels, compared with injected vaccination. Conclusions. Anthrax vaccine patches stimulated robust and functional immune responses that protected against lethal challenge. Demonstration of responses in the lung suggests that a mechanism exists for protection against challenge with aerosolized anthrax spores. A formulated, pressure-sensitive, dry adhesive patch, which is stable and can be manufactured in large scale, elicited comparable immunoglobulin G and TNA responses, suggesting that an anthrax vaccine patch is feasible and should advance into clinical evaluation.

L2 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:713114 CAPLUS
DN 135:247237
TI Pharmaceutical composition for administration to mucosal surfaces
IN Alpar, Hazire Oya; Eyles, James Edward; Williamson, Ethel Diane
PA Secretary of State for Defence, UK
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001070200	A1	20010927	WO 2001-GB1248	20010322
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2399695	A1	20010927	CA 2001-2399695	20010322
	EP 1265598	A1	20021218	EP 2001-914018	20010322
	EP 1265598	B1	20060802		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003527413	T	20030916	JP 2001-568398	20010322
	AU 780182	B2	20050303	AU 2001-39407	20010322
	AT 334658	T	20060815	AT 2001-914018	20010322
	US 2005181063	A1	20050818	US 2002-221954	20021209
PRAI	GB 2000-6770	A	20000322		
	GB 2001-1094	A	20010116		
	WO 2001-GB1248	W	20010322		

AB A pharmaceutical composition for administration to mucosal surfaces, which composition comprises a biol. active agent, a first amount of said agent being encapsulated within microspheres which comprise a polymer which has a mol. weight in excess of 94 kDa and a maximum diameter of 20 μm, and a second amount of said agent being in a form which has a higher bioavailability than said first amount The composition is particularly useful for the intra-nasal administration of vaccines in a single shot vaccination. Polylactide microcapsules containing 18-20 μg each of F1 and V antigens of Yersinia pestis were prepared The mean volume diameter of the microcapsules was 6 μm. Efficacy of the single dose intra-nasal delivery of microencapsulated F1 and V antigens in protecting mice against challenge with Y. pestis is described.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:688115 CAPLUS
DN 133:271615
TI Immunostimulants comprising polycationic carbohydrates
IN Alpar, Hazire Oya; Eyles, James Edward; Somavarapu, Satyanarayana; Williamson, Ethel Diane; Baillie, Leslie William James
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000056362	A2	20000928	WO 2000-GB1118	20000323
	WO 2000056362	A3	20010201		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,				

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            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2366216          A1    20000928    CA 2000-2366216        20000323
     EP 1163002          A2    20011219    EP 2000-912788         20000323
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
     JP 2002540077       T     20021126    JP 2000-606266         20000323
     AU 755502           B2    20021212    AU 2000-34435          20000323
PRAI GB 1999-6694        A     19990324
     GB 1999-6696        A     19990324
     WO 2000-GB1118      W     20000323
AB   A polycationic carbohydrate such as chitosan, or a pharmaceutically
     acceptable derivative thereof, are used as immunostimulants.  Vaccine compns.
     containing these polycationic carbohydrates, in particular in particles such
     as microparticles or liposomes are also described and claimed.  Methods of
     treatment and the use of the polycationic carbohydrates as
     immunostimulants in the production of vaccines are further aspects described
     and claimed.  A solution of 0.75% chitosan solution containing diphtheria
toxoid was
     vigorously mixed with 200 mg of polylactide dissolved in 5 mL of
     dichloromethane.  The emulsion was gradually added into an aqueous phase
     containing 0.5% chitosan and homogenized, then gently stirred overnight until
     dichloromethane was evaporated  The microspheres thus obtain were separated,
     washed and lyophilized.  The microspheres were injected to mice on day 1
     and day 67 and IgG was monitored.  Throughout the 151 day schedule mice
     maintained statistically elevated serum IgG titers to diphtheria toxoids
     as compared to animals treated with free vaccine or microspheres without
     chitosan.


=> e phillips gary john/au
E1          26     PHILLIPS GARY J/AU
E2           1     PHILLIPS GARY JAMES/AU
E3           2 --> PHILLIPS GARY JOHN/AU
E4           1     PHILLIPS GARY L/AU
E5          12     PHILLIPS GARY M/AU
E6           1     PHILLIPS GARY O/AU
E7          12     PHILLIPS GARY S/AU
E8          16     PHILLIPS GARY W/AU
E9           5     PHILLIPS GARY WILSON/AU
E10         13     PHILLIPS GAVIN/AU
E11         44     PHILLIPS GAVIN D/AU
E12          5     PHILLIPS GAVIN N/AU

=> s e1-e3 and microspher?
L3           2 ("PHILLIPS GARY J"/AU OR "PHILLIPS GARY JAMES"/AU OR "PHILLIPS
               GARY JOHN"/AU) AND MICROSPHER?

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4            2 DUP REM L3 (0 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L4   ANSWER 1 OF 2  USPATFULL on STN
AN     2006:280994  USPATFULL
TI     Pharmaceutical aerosol composition
IN     Eyles, James Edward, Wiltshire, UNITED KINGDOM
         Phillips, Gary John, Wiltshire, UNITED KINGDOM
       Maidment, Michael Patrick, Wiltshire, UNITED KINGDOM
       Williamson, Ethel Diane, Wiltshire, UNITED KINGDOM
PI     US 2006239931       A1  20061026
AI     US 2004-542449      A1  20040114 (10)
       WO 2004-GB104           20040114
```

20051213 PCT 371 date
PRAI GB 2003-885 20030115
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, ATLANTA, GA, 30309, US
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 341
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An aerosol formulation comprising a biodegradable microsphere comprising a non-living reagent, such as a sub-unit vaccine, that produces a protective immune response in a mammal to whom it is administered. Nebulizers and inhalers containing such formulations are also described and claimed.

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:610075 CAPLUS
DN 141:145719
TI Pharmaceutical aerosol composition
IN Eyles, James Edward; Phillips, Gary John; Maidment, Michael Patrick; Williamson, Ethel Diane
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004062651	A1	20040729	WO 2004-GB104	20040114
	WO 2004062651	A8	20040930		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
	AU 2004204392	A1	20040729	AU 2004-204392	20040114
	CA 2513279	A1	20040729	CA 2004-2513279	20040114
	EP 1643979	A1	20060412	EP 2004-701996	20040114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	JP 2006515354	T	20060525	JP 2006-500205	20040114
	US 2006239931	A1	20061026	US 2005-542449	20051213
PRAI	GB 2003-885	A	20030115		
	WO 2004-GB104	W	20040114		

AB An aerosol formulation comprising a biodegradable microsphere comprising a non-living reagent, such as a sub-unit vaccine, that produces a protective immune response in a mammal to whom it is administered is described. Nebulizers and inhalers containing such formulations are also described and claimed. For example, polylactide (Resomer L210) microspheres were loaded with either bovine serum albumin or recombinant V antigen (rV) from Yersinia pestis using a modified double-emulsion solvent evaporation process. Microspheres had a loading of 3.8% (BSA) and 3.3% (rV), and were capable of delivering antigen to the lung and lung lymph node by aerosolization.

=> e maidment michael patrick/au
E1 15 MAIDMENT MAURICE S/AU
E2 6 MAIDMENT MICHAEL P/AU
E3 2 --> MAIDMENT MICHAEL PATRICK/AU
E4 41 MAIDMENT N/AU
E5 1 MAIDMENT N I/AU

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E6            1     MAIDMENT N J/AU
E7            3     MAIDMENT N J M/AU
E8            1     MAIDMENT N L/AU
E9          388     MAIDMENT N T/AU
E10          14     MAIDMENT NIGEL/AU
E11         111     MAIDMENT NIGEL T/AU
E12           1     MAIDMENT PETER E/AU

=> s e2-e3
L5            8 ("MAIDMENT MICHAEL P"/AU OR "MAIDMENT MICHAEL PATRICK"/AU)

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6            7 DUP REM L5 (1 DUPLICATE REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

L6   ANSWER 1 OF 7  USPATFULL on STN
AN     2006:280994  USPATFULL
TI     Pharmaceutical aerosol composition
IN     Eyles, James Edward, Wiltshire, UNITED KINGDOM
       Phillips, Gary John, Wiltshire, UNITED KINGDOM
         Maidment, Michael Patrick, Wiltshire, UNITED KINGDOM
       Williamson, Ethel Diane, Wiltshire, UNITED KINGDOM
PI     US 2006239931       A1  20061026
AI     US 2004-542449      A1  20040114 (10)
       WO 2004-GB104           20040114
                               20051213  PCT 371 date
PRAI   GB 2003-885         20030115
DT     Utility
FS     APPLICATION
LREP   JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET,
       ATLANTA, GA, 30309, US
CLMN   Number of Claims: 17
ECL    Exemplary Claim: 1
DRWN   3 Drawing Page(s)
LN.CNT 341
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     An aerosol formulation comprising a biodegradable microsphere comprising
       a non-living reagent, such as a sub-unit vaccine, that produces a
       protective immune response in a mammal to whom it is administered.
       Nebulizers and inhalers containing such formulations are also described
       and claimed.

L6   ANSWER 2 OF 7  CAPLUS  COPYRIGHT 2007 ACS on STN  DUPLICATE 1
AN   2006:297582  CAPLUS
DN   144:383502
TI   Closed Cup Vapor Systems in Percutaneous Exposure Studies: What is the
     Dose?
AU   Dalton, Christopher H.; Maidment, Michael P.; Jenner, John;
     Chilcott, Robert P.
CS   Dstl Biomedical Sciences, CBD Porton Down, Wiltshire, Salisbury, SP4 0JQ,
     UK
SO   Journal of Analytical Toxicology (2006), 30(3), 165-170
     CODEN: JATOD3; ISSN: 0146-4760
PB   Preston Publications
DT   Journal
LA   English
AB   Percutaneous vapor dosing studies have generally used saturated vapor
concentration
     (SVC) measurements to estimate the exposure dose (Ct) of vapor produced from a
     volatile liquid within a closed system.  The purpose of this study was to
     clarify whether the assumption was valid when translated to a biol. system
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(swine skin) using sulfur mustard (SM) as a model skin penetrant. Three systems were evaluated, two containing skin and a control system (without skin). At set time points, samples from the headspace of each dosing system were extracted using a gas-tight syringe and analyzed by gas chromatog. in conjunction with a flame-ionization detector. This demonstrated the rapid achievement of a constant vapor concentration within the biol. and control systems and enabled a comparison with previously determined SVCs attained under ideal conditions. All 3 systems attained a constant vapor concentration within 2 min of exposure to SM. The control system reached an equilibrium vapor concentration of 1179 ± 164 mg/m3, a value not significantly different from that derived from the SVC (1363 mg/m3). Because of absorption in the skin systems, SM vapor concns. were significantly lower than that derived from the SVC and were dependent on the skin surface area within the dosing chamber (592 ± 246 mg/m3 for a surface area of 10.15 cm2 and 740 ± 224 mg/m3 for a surface area of 2.54 cm2). The assumption that SVC gives an acceptable measure of the Ct was shown to be valid by comparison with sulfur mustard recovered from the skin. (c) 2006 Preston Publications.

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:610075 CAPLUS
DN 141:145719
TI Pharmaceutical aerosol composition
IN Eyles, James Edward; Phillips, Gary John; Maidment, Michael Patrick; Williamson, Ethel Diane
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004062651	A1	20040729	WO 2004-GB104	20040114
	WO 2004062651	A8	20040930		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
	AU 2004204392	A1	20040729	AU 2004-204392	20040114
	CA 2513279	A1	20040729	CA 2004-2513279	20040114
	EP 1643979	A1	20060412	EP 2004-701996	20040114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	JP 2006515354	T	20060525	JP 2006-500205	20040114
	US 2006239931	A1	20061026	US 2005-542449	20051213
PRAI	GB 2003-885	A	20030115		
	WO 2004-GB104	W	20040114		

AB An aerosol formulation comprising a biodegradable microsphere comprising a non-living reagent, such as a sub-unit vaccine, that produces a protective immune response in a mammal to whom it is administered is described. Nebulizers and inhalers containing such formulations are also described and claimed. For example, polylactide (Resomer L210) microspheres were loaded with either bovine serum albumin or recombinant V antigen (rV) from Yersinia pestis using a modified double-emulsion solvent evaporation process. Microspheres had a loading of 3.8% (BSA) and 3.3% (rV), and were capable of delivering antigen to the lung and lung lymph node by aerosolization.

L6 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:375726 CAPLUS

DN 127:1772
TI Retention of inhaled reactive organofluorine pulmonary edemagens in the rat respiratory tract
AU Maidment, Michael P.; Upshall, David G.
CS Biology Division, Chemical Biological Defence Establishment, Wiltshire, UK
SO Proceedings of the ERDEC Scientific Conference on Chemical and Biological Defense Research, Aberdeen Proving Ground, Md., Nov. 15-18, 1994 (1996), Meeting Date 1994, 755. Editor(s): Berg, Dorothy A. Publisher: National Technical Information Service, Springfield, Va.
CODEN: 64NAAX
DT Conference
LA English
AB Gaseous organofluorine pulmonary edemagens, perfluoroisobutene, hexafluorocyclobutene, and chloro-, bromo-, and hydrogen substituted derivs. of hexafluorocyclobutene were inhaled by rats in a flow through, head or nose only exposure apparatus, which permitted the breathing parameters of the animals to be determined online. At the same time the amount of retained gas was determined by gas chromatog. The degree of retention is correlated with the vapor pressure of the gases and there is evidence of a saturable component within the respiratory tract that is both time and concentration dependent. There was no histopathol. damage within the respiratory tract.

L6 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1992:542807 CAPLUS
DN 117:142807
TI Conversion of a peptido-aminobenzophenone pro-drug to diazepam in vitro. Enzyme isolation and characterization
AU Upshall, David G.; Gouldstone, Stephen J.; Macey, Neil; Maidment, Michael P.; West, Sarah J.; Yeadon, Michael
CS Biol. Div., Chem. Def. Estab., Salisbury/Wiltshire, SP4 OJQ, UK
SO Journal of Biopharmaceutical Sciences (1990), 1(2), 111-26
CODEN: JBISE2; ISSN: 0957-7548
DT Journal
LA English
AB Blood plasma from guinea pigs, rhesus monkeys, and humans hydrolyzes peptidoaminobenzophenone diazepam prodrugs to diazepam. In vitro, there is >85% conversion of the lysyl analog to diazepam and the rate of conversion is of the first order with half-lives of hydrolysis of 0.42, 2.7, and 4.2 min for the 3 species, resp. In blood plasma, the rates of hydrolysis were greatest for the Ala, Leu, and Met analogs, with no hydrolysis of the Pro analog. The apparent Km ranged from 140.9 μM (Gly) to 14.7 μM (Ile) and Vmax from 79.2 (Ala) to 3.7 (Val) nmol min-1 mL-1 plasma. The enzyme in human plasma was partially purified by ammonium sulfate fractionation and gel filtration, and was characterized with respect to substrate specificity, pH, ionic strength, temperature, and interaction with selected inhibitors. Three components of enzyme activity with respect to the Lys, Gly, Ile, and Ala analogs were identified. The major component had a mol. weight of 174 kDa and the minor components had mol. wts of 64 and 380 kDa. The enzyme had an apparent Michaelis constant little different from that determined for plasma. The enzyme reaction was maximal at 55° but the enzyme denatured at temps. >50°. The pH optimum was 7.5 and activity increased with ionic strength to a maximum at $\mu = 0.8$. It was not inhibited by physostigmine, pyridostigmine, iodoacetic acid or EDTA, but La3+ (300 μM) and p-chloromercuribenzoate (600 μM) inhibited the hydrolysis. The enzyme may be a blood plasma aminopeptidase of the C-esterase type.

L6 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1992:523933 CAPLUS
DN 117:123933
TI Pharmacokinetics of the conversion of a peptidoaminobenzophenone pro-drug to diazepam in guinea pigs and rhesus monkeys
AU Maidment, Michael P.; Upshall, David G.

CS Biol. Div., Chem. Def. Establ., Salisbury/Wilshire, SP4 OJQ, UK
SO Journal of Biopharmaceutical Sciences (1990), 1(1), 19-32
CODEN: JBISE2; ISSN: 0957-7548
DT Journal
LA English
AB The pharmacokinetics of a lysyl, peptidoaminobenzophenone, diazepam pro-drug has been determined in guinea pigs and rhesus monkeys after i.v. and i.m. injection. After i.v. injection in the guinea pig and rhesus monkey at molar equivalent doses, high levels of diazepam were seen in blood within 1 min and which decayed tri- and biexponentially resp. The overall bioavailability of diazepam from prodrug was between 82.9% and 89.5%. After i.m. injection of the pro-drug to guinea pigs 91.7% was converted to diazepam and peak blood levels were achieved sooner than from diazepam itself (15 min and 25 min resp.). In the two rhesus monkeys studied, the time course of the appearance of diazepam in the blood stream was similar to the guinea pig; however the bioavailabilities of diazepam from pro-drug were lower (59.9% and 45.3%). Differences were apparent between the two monkeys in the ability to demethylate diazepam. The monkey with the greatest ability to demethylate diazepam had the lower bioavailability of diazepam from either parent or pro-drug. The rates and amount of conversion of pro-drug to diazepam confirm in vitro studies reported elsewhere.

L6 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1983:174404 CAPLUS
DN 98:174404
TI The delayed neuropathic effects of nerve agents and some other organophosphorus compounds
AU Gordon, James J.; Inns, Robert H.; Johnson, Martin K.; Leadbeater, Levence; Maidment, Michael P.; Upshall, David G.; Cooper, Graham H.; Rickard, Robert L.
CS Chem. Defence Establ., Minist. Defence, Porton Down/Salisbury/Wilts., SP4 OJQ, UK
SO Archives of Toxicology (1983), 52(2), 71-82
CODEN: ARTODN; ISSN: 0340-5761
DT Journal
LA English
AB The in vitro inhibitory potencies of several nerve agents and other organophosphorus compds. against acetylcholinesterase (AChE) [9000-81-1] and neurotoxic esterase (NTE) [9013-79-0] were compared. Although the I50s against AChE were .apprx.0.1-1.0 nM for the nerve agents, the I50s against NTE for sarin [107-44-8], soman [96-64-0], and tabun [77-81-6] were 2-4 orders of magnitude higher and VX [50782-69-9] had negligible activity. A series of bis[ω-phenyl-n-alkyl]phosphorofluoridates inhibited enzymes at 1.0-100 nM, while ω-phenyl-n-alkyl N,N-dimethylphosphoramidofluoridates were active at 0.1-10 μM. From the in vitro data, nerve agents should cause delayed neuropathy only at doses greatly exceeding the LD50. In hens protected against acute toxicity by pretreatment with physostigmine [57-47-6], atropine [51-55-8], and the oxime P2S [154-97-2], delayed neuropathy associated with high inhibition of NTE was found at 30-60 + LD50 for sarin but not at 38 + LD50 for soman or 82 + LD50 for tabun. At the maximum doses tested of the latter 2 compds., the inhibition of NTE was 55 and 66%, resp. The min. neuropathic doses were .apprx.100-150 + LD50 for soman and tabun. As expected from in vitro data, neuropathy, associated with a high level of inhibition of NTE, was caused by 1 of the bis-phenylalkyl phosphorofluoridates at doses causing negligible acute toxicity. The required dose was 9 + that for DFP [55-91-4] although the compound was 300 + more active against NTE in vitro suggesting that such compds. are rapidly degraded in vivo. The phenylalkyl N,N-dimethylphosphoramidofluoridates produced prolonged acute signs of poisoning, but they were not neuropathic at the maximum tolerable doses nor was the NTE greatly inhibited contrary to the prediction from the in vitro data. The enantiomer responsible for the inhibition of NTE is preferentially degraded in vivo. Several other

phosphoramidofluoridates inhibit NTE in vitro at 1.0-100 μM and a number of bicyclic phosphates were inactive at 23 μM. None of these compds. was tested in vivo.

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=> e williamson ethel diane/au
E1            3     WILLIAMSON ETHEL/AU
E2            4     WILLIAMSON ETHEL D/AU
E3           23 --> WILLIAMSON ETHEL DIANE/AU
E4            1     WILLIAMSON EUGENE/AU
E5            1     WILLIAMSON EUGENE F/AU
E6            2     WILLIAMSON EUGENE H/AU
E7            1     WILLIAMSON EUGENE L/AU
E8            3     WILLIAMSON EVA/AU
E9            1     WILLIAMSON EVE/AU
E10           2     WILLIAMSON EVERETT W/AU
E11           1     WILLIAMSON EYREICK/AU
E12          75     WILLIAMSON F/AU

=> s e2-e3
L7           27 ("WILLIAMSON ETHEL D"/AU OR "WILLIAMSON ETHEL DIANE"/AU)

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8           25 DUP REM L7 (2 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 25 ANSWERS - CONTINUE? Y/(N):y

L8   ANSWER 1 OF 25  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2006:945857  CAPLUS
DN   145:321378
TI   Anthrax vaccine formulation containing Bacillus spore-coat associated protein
     N as adjuvants
IN   Flick-Smith, Helen Claire; Eyles, James Edward; Waters, Emma Louise;
     Walker, Nicola Jane; Williamson, Ethel Diane; Baillie, Leslie
     William Jones; Miller, Julie
PA   The Secretary of State for Defence, UK
SO   PCT Int. Appl., 12pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     ---------------     ----   --------    --------------------    --------
PI   WO 2006095176        A2    20060914    WO 2006-GB838           20060310
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
             MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
             SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
PRAI GB 2005-4940          A     20050310
AB   Spore coat-associated proteins from members of Bacillus genera, and in
     particular spore-coat associated protein N (CotN), have utilization as
     adjuvants in vaccine formulations. The vaccine formulations most likely
     contain a virulence factor of bacterial origin, which in the case of
     Bacillus genera is the protective antigen.
```

L8 ANSWER 2 OF 25 USPATFULL on STN
AN 2006:280994 USPATFULL
TI Pharmaceutical aerosol composition
IN Eyles, James Edward, Wiltshire, UNITED KINGDOM
Phillips, Gary John, Wiltshire, UNITED KINGDOM
Maidment, Michael Patrick, Wiltshire, UNITED KINGDOM
Williamson, Ethel Diane, Wiltshire, UNITED KINGDOM
PI US 2006239931 A1 20061026
AI US 2004-542449 A1 20040114 (10)
WO 2004-GB104 20040114
20051213 PCT 371 date
PRAI GB 2003-885 20030115
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, ATLANTA, GA, 30309, US
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 341
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An aerosol formulation comprising a biodegradable microsphere comprising a non-living reagent, such as a sub-unit vaccine, that produces a protective immune response in a mammal to whom it is administered. Nebulizers and inhalers containing such formulations are also described and claimed.

L8 ANSWER 3 OF 25 USPATFULL on STN
AN 2006:110667 USPATFULL
TI Vaccine against yersinia comprising one or two antibodies, one specific for yersinia pestis f1-antigen and the other one for yersinia pestis v-antigen
IN Hill, James, c/o DSTL,, Porton Down, Salisbury, Wiltshire, UNITED KINGDOM SP4 0JQ
Williamson, Ethel Diane, Salisbury, UNITED KINGDOM
Titball, Richard William, Salisbury, UNITED KINGDOM
PA The Secretary Of State For Defence, Salisbury, Wiltshire, UNITED KINGDOM, SP40JQ (non-U.S. corporation)
PI US 2006093609 A1 20060504
AI US 2003-525057 A1 20030829 (10)
WO 2003-GB3747 20030829
20050914 PCT 371 date
PRAI GB 2002-20257 20020831
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, ATLANTA, GA, 30309, US
CLMN Number of Claims: 17
ECL Exemplary Claim: 1-16
DRWN No Drawings
LN.CNT 519
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The use of (i) an antibody specific for Yersinia pestis F1-antigen, or a binding fragment thereof, or (ii) an antibody specific for Yersinia pestis V-antigen, or a binding fragment thereof, or a combination of (i) and (ii), in the production of a medicament for the treatment of infection by Yersinia pestis. It has been found that such treatments are effective therapies for Yersinia pestis infection. In addition, the combination produces a synergistic effect when used prophylactically.

L8 ANSWER 4 OF 25 USPATFULL on STN
AN 2005:208585 USPATFULL
TI Pharmaceutical composition for administration to mucosal surfaces

IN Alpar, Hazire Oya, London, UNITED KINGDOM
Eyles, James Edward, Wiltshire, UNITED KINGDOM
Williamson, Ethel Diane, Wiltshire, UNITED KINGDOM
PI US 2005181063 A1 20050818
AI US 2002-221954 A1 20010322 (10)
WO 2001-GB1248 20010322
PRAI GB 2000-6770 20000322
GB 2002-101094 20010116
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, ATLANTA, GA, 30309, US
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 474
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A pharmaceutical composition for administration to mucosal surfaces, which composition comprises a biologically active agent, a first amount of said agent being encapsulated within microspheres which comprise a polymer which has a molecular weight in excess of 94 kDa and a maximum diameter of 20 μm, and a second amount of said agent being in a form which has a higher bioavailability than said first amount. The composition is particularly useful for the intra-nasal administration of vaccines in a single shot vaccination.

L8 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:610075 CAPLUS
DN 141:145719
TI Pharmaceutical aerosol composition
IN Eyles, James Edward; Phillips, Gary John; Maidment, Michael Patrick; Williamson, Ethel Diane
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004062651	A1	20040729	WO 2004-GB104	20040114
	WO 2004062651	A8	20040930		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
	AU 2004204392	A1	20040729	AU 2004-204392	20040114
	CA 2513279	A1	20040729	CA 2004-2513279	20040114
	EP 1643979	A1	20060412	EP 2004-701996	20040114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	JP 2006515354	T	20060525	JP 2006-500205	20040114
	US 2006239931	A1	20061026	US 2005-542449	20051213
PRAI	GB 2003-885	A	20030115		
	WO 2004-GB104	W	20040114		

AB An aerosol formulation comprising a biodegradable microsphere comprising a non-living reagent, such as a sub-unit vaccine, that produces a protective immune response in a mammal to whom it is administered is described. Nebulizers and inhalers containing such formulations are also described and claimed. For example, polylactide (Resomer L210) microspheres were loaded with either bovine serum albumin or recombinant V antigen (rV) from Yersinia pestis using a modified double-emulsion solvent evaporation process. Microspheres had a loading of 3.8% (BSA) and 3.3% (rV), and were capable of delivering antigen to the lung and lung lymph node by aerosolization.

L8 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:610031 CAPLUS
DN 141:145715
TI Use of a microcapsule for administration of medicament to antigen-presenting cells
IN Westwood, Angie; Healey, Gareth David; Eyles, James Edward; Williamson, Ethel Diane
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004062559	A2	20040729	WO 2004-GB114	20040114
	WO 2004062559	A3	20040902		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
PRAI	GB 2003-881	A	20030115		

AB The present invention relates to the use of a microcapsule in the preparation of a medicament for administration to an antigen-presenting cell such as a dendritic cell of a patient, for the activation of the immune response of said patient. APC treated using the microcapsule may be used in prophylaxis or therapy, for example to protect a patient against infection by a pathogen.

L8 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:203700 CAPLUS
DN 140:216179
TI Protection against Yersinia pestis comprising antibodies to F1-antigen and V-antigen
IN Hill, James; Williamson, Ethel Diane; Titball, Richard William
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004019980	A1	20040311	WO 2003-GB3747	20030829
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2495833	A1	20040311	CA 2003-2495833	20030829
	AU 2003260752	A1	20040319	AU 2003-260752	20030829
	EP 1536833	A1	20050608	EP 2003-791048	20030829
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2006500386	T	20060105	JP 2004-532311	20030829
	US 2006093609	A1	20060504	US 2005-525057	20050914
PRAI	GB 2002-20257	A	20020831		
	WO 2003-GB3747	W	20030829		

AB The authors disclose the use of (i) an antibody specific for Yersinia pestis F1-antigen (or a binding fragment thereof), or (ii) an antibody specific for Yersinia pestis V-antigen (or a binding fragment thereof), or a combination of (i) and (ii), in the treatment of infection by Yersinia pestis. In addition, the combination produces a synergistic effect when used prophylactically.
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 8 OF 25 USPATFULL on STN
AN 2004:299273 USPATFULL
TI Expression system
IN Williamson, Ethel Diane, Wiltshire, UNITED KINGDOM
Baillie, Leslie William James, Wiltshire, UNITED KINGDOM
Miller, Julie, Wilshire, UNITED KINGDOM
PI US 2004235140 A1 20041125
AI US 2004-483150 A1 20040625 (10)
WO 2002-GB3166 20020709
PRAI GB 2001-16798 20010710
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, ATLANTA, GA, 30309
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 516
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A recombinant microorganism comprises an asporogenic Bacillus subtilis strain in which a gene encoding a protease enzyme has been downregulated or inactivated. In particular sigma factorspoIIAC is inactivated such that the strain is asporogenic. These strains are particularly useful as expression vehicles for proteins such as protective antigen (PA) of Bacillus anthracis.

L8 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:58242 CAPLUS
DN 138:118447
TI Recombinant Bacillus subtilis with mutations of the protease genes and uses as expression vector
IN Williamson, Ethel Diane; Baillie, Leslie William James; Miller, Julie
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003006649	A2	20030123	WO 2002-GB3166	20020709
	WO 2003006649	A3	20030508		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1407054	A2	20040414	EP 2002-740950	20020709
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

	JP 2004534545	T	20041118	JP 2003-512407	20020709
	US 2004235140	A1	20041125	US 2004-483150	20040625
PRAI	GB 2001-16798	A	20010710		
	WO 2002-GB3166	W	20020709		

AB The present invention relates to a recombinant microorganism comprises an asporogenic Bacillus subtilis strain in which genes encoding protease enzymes have been downregulated or inactivated and its uses as heterologous proteins expression vector. In particular sigma factor spoIIAC is inactivated such that the strain is asporogenic. These strains are particularly useful as expression vehicles for proteins such as protective antigen (PA) of Bacillus anthracis without generating problems associated with sporulation.

L8 ANSWER 10 OF 25 USPATFULL on STN
AN 2003:244844 USPATFULL
TI Particle based vaccine composition
IN Alpar, Hazire Oya, London, UNITED KINGDOM
Williamson, Ethel Diane, Salisbury Wiltshire, UNITED KINGDOM
James Baillie, Leslie William, Salisbury Wiltshire, UNITED KINGDOM
PI US 2003171258 A1 20030911
AI US 2003-335906 A1 20030102 (10)
RLI Continuation of Ser. No. US 2001-937065, filed on 20 Sep 2001, ABANDONED A 371 of International Ser. No. WO 2000-GB1108, filed on 23 Mar 2000, UNKNOWN
PRAI GB 1999-6695 19990324
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, SUITE 2800, ATLANTA, GA, 30309
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 447
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A pharmaceutical composition which comprises microparticles comprising (i) a biologically active compound capable of generating an immune response in an animal to which it is administered which is protective against a pathogen; (ii) a polymeric material capable of forming microspheres; and (iii) an immunostimulant comprising a phospholipid. The composition is particularly useful for the oral administration of vaccines.

L8 ANSWER 11 OF 25 USPATFULL on STN
AN 2003:243854 USPATFULL
TI Expression system
IN Williamson, Ethel Diane, Wiltshire, UNITED KINGDOM
Miller, Julie, Wiltshire, UNITED KINGDOM
Walker, Nicola Jane, Wiltshire, UNITED KINGDOM
Baillie, Leslie William James, Wiltshire, UNITED KINGDOM
Holden, Paula Thomson, Wiltshire, UNITED KINGDOM
Flick-Smith, Helen Claire, Wiltshire, UNITED KINGDOM
Bullifent, Helen Lisa, Wiltshire, UNITED KINGDOM
Titball, Richard William, Wiltshire, UNITED KINGDOM
Topping, Andrew William, North Yorkshire, UNITED KINGDOM
PI US 2003170263 A1 20030911
AI US 2003-332282 A1 20030411 (10)
WO 2001-GB3065 20010706
PRAI GB 2000-16702 20000708
DT Utility
FS APPLICATION
LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, SUITE 2800, ATLANTA, GA, 30309
CLMN Number of Claims: 34

ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 1386
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An immunogenic reagent which produces an immune response which is protective against Bacillus anthracis, said reagent comprising one or more polypeptides which together represent up to three domains of the full length Protective Antigen (PA) of B. anthracis or variants of these, and at least one of said domains comprises domain 1 or domain 4 of PA or a variant thereof. The polypeptides of the immunogenic reagent as well as full length PA are produced by expression from E. coli. High yields of polypeptide are obtained using this method. Cells, vectors and nucleic acids used in the method are also described and claimed.

L8 ANSWER 12 OF 25 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 1
AN 2002:389240 BIOSIS
DN PREV200200389240
TI Clostridium perfringens vaccines.
AU Titball, Richard W [Inventor, Reprint author]; Williamson, Ethel D [Inventor]; Havard, Helen L [Inventor]; Oyston, Petra C F [Inventor]; Payne, Dean W [Inventor]
CS Salisbury, UK
ASSIGNEE: The Secretary of State for Defence in Her Britannic Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, Farnborough, UK
PI US 6403094 20020611
SO Official Gazette of the United States Patent and Trademark Office Patents, (June 11, 2002) Vol. 1259, No. 2. http://www.uspto.gov/web/menu/patdata.html. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 17 Jul 2002
Last Updated on STN: 17 Jul 2002
AB The present invention provides proteins for use in vaccines which are capable of inducing protective antibodies directed against C. perfringens epsilon toxin when administered to animals or man and thereby providing prophylaxis or therapy against infection by C. perfringens epsilon toxin. Particularly the present invention provides proteins which are based upon the mature toxin of the clostridium perfringensepsilon toxin gene, but which have a mutation such that the amino acid at position 106 is different to the wild-type sequence and their use in vaccine compositions.

L8 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:51646 CAPLUS
DN 136:101094
TI Use of domains of the protective antigen of Bacillus anthracis in vaccines
IN Williamson, Ethel Diane; Miller, Julie; Walker, Nicola Jane; Baillie, Leslie William James; Holden, Paula Thomson; Flick-Smith, Helen Claire; Bullifent, Helen Lisa; Titball, Richard William; Topping, Andrew William
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002004646	A1	20020117	WO 2001-GB3065	20010706

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,

LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2413045	A1	20020117	CA 2001-2413045	20010706
EP 1301606	A1	20030416	EP 2001-947659	20010706
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004502460	T	20040129	JP 2002-509500	20010706
RU 2270865	C2	20060227	RU 2003-103779	20010706
ZA 2002010206	A	20040317	ZA 2002-10206	20021217
IN 2003MN00008	A	20050204	IN 2003-MN8	20030102
US 2003170263	A1	20030911	US 2003-332282	20030411
PRAI GB 2000-16702	A	20000708		
WO 2001-GB3065	W	20010706		

AB An immunogenic reagent which produces an immune response which is protective against Bacillus anthracis is described for use in vaccines. This reagent comprising one or more polypeptides which together represent up to three domains of the full length Protective Antigen (PA) of B . anthracis or its variants. At least one of said domains comprises domain 1 or domain 4 of PA or a variant thereof which produce the greatest protective immunity. The polypeptides of the immunogenic reagent as well as full length PA are produced by expression from E. coli. A method of producing the said protective antigen or a variant thereof which can produce a protective immune response where the the percentage of guanine and cytosine residues in the gene sequence is greater than 35% or preferably between 50-52%. High yields of polypeptide are obtained using this method. Cells, vectors and nucleic acids used in the method are also described and claimed.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2001:713114 CAPLUS
DN 135:247237
TI Pharmaceutical composition for administration to mucosal surfaces
IN Alpar, Hazire Oya; Eyles, James Edward; Williamson, Ethel Diane
PA Secretary of State for Defence, UK
SO PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001070200	A1	20010927	WO 2001-GB1248	20010322
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2399695	A1	20010927	CA 2001-2399695	20010322
EP 1265598	A1	20021218	EP 2001-914018	20010322
EP 1265598	B1	20060802		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003527413	T	20030916	JP 2001-568398	20010322
AU 780182	B2	20050303	AU 2001-39407	20010322

	AT 334658	T	20060815	AT 2001-914018	20010322
	US 2005181063	A1	20050818	US 2002-221954	20021209
PRAI	GB 2000-6770	A	20000322		
	GB 2001-1094	A	20010116		
	WO 2001-GB1248	W	20010322		

AB A pharmaceutical composition for administration to mucosal surfaces, which composition comprises a biol. active agent, a first amount of said agent being encapsulated within microspheres which comprise a polymer which has a mol. weight in excess of 94 kDa and a maximum diameter of 20 μm, and a second amount of said agent being in a form which has a higher bioavailability than said first amount The composition is particularly useful for the intra-nasal administration of vaccines in a single shot vaccination. Polylactide microcapsules containing 18-20 μg each of F1 and V antigens of Yersinia pestis were prepared The mean volume diameter of the microcapsules was 6 μm. Efficacy of the single dose intra-nasal delivery of microencapsulated F1 and V antigens in protecting mice against challenge with Y. pestis is described.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:688115 CAPLUS
DN 133:271615
TI Immunostimulants comprising polycationic carbohydrates
IN Alpar, Hazire Oya; Eyles, James Edward; Somavarapu, Satyanarayana; Williamson, Ethel Diane; Baillie, Leslie William James
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000056362	A2	20000928	WO 2000-GB1118	20000323
	WO 2000056362	A3	20010201		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2366216	A1	20000928	CA 2000-2366216	20000323
	EP 1163002	A2	20011219	EP 2000-912788	20000323
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002540077	T	20021126	JP 2000-606266	20000323
	AU 755502	B2	20021212	AU 2000-34435	20000323
PRAI	GB 1999-6694	A	19990324		
	GB 1999-6696	A	19990324		
	WO 2000-GB1118	W	20000323		

AB A polycationic carbohydrate such as chitosan, or a pharmaceutically acceptable derivative thereof, are used as immunostimulants. Vaccine compns. containing these polycationic carbohydrates, in particular in particles such as microparticles or liposomes are also described and claimed. Methods of treatment and the use of the polycationic carbohydrates as immunostimulants in the production of vaccines are further aspects described and claimed. A solution of 0.75% chitosan solution containing diphtheria toxoid was vigorously mixed with 200 mg of polylactide dissolved in 5 mL of dichloromethane. The emulsion was gradually added into an aqueous phase

containing 0.5% chitosan and homogenized, then gently stirred overnight until dichloromethane was evaporated The microspheres thus obtain were separated, washed and lyophilized. The microspheres were injected to mice on day 1 and day 67 and IgG was monitored. Throughout the 151 day schedule mice maintained statistically elevated serum IgG titers to diphtheria toxoids as compared to animals treated with free vaccine or microspheres without chitosan.

L8 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:688114 CAPLUS
DN 133:271614
TI Vaccine composition comprising penetration enhancers
IN Alpar, Hazire Oya; Somavarapu, Satyanarayana; Williamson, Ethel Diane; Baillie, Leslie William James
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000056361	A2	20000928	WO 2000-GB1104	20000323
	WO 2000056361	A3	20010301		
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2366908	A1	20000928	CA 2000-2366908	20000323
	EP 1163001	A2	20011219	EP 2000-912777	20000323
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002540076	T	20021126	JP 2000-606265	20000323
	NZ 514323	A	20030328	NZ 2000-514323	20000323
	AU 762078	B2	20030619	AU 2000-34424	20000323
PRAI	GB 1999-6694	A	19990324		
	GB 1999-6696	A	19990324		
	WO 2000-GB1104	W	20000323		

AB A pharmaceutical composition comprising: (i) a biol. active agent; (ii) an adjuvant chemical which increases the effect of the biol. active agent, said chemical selected from one or more of: (A) a polyamino acid, (B) a vitamin or vitamin derivative, (C) cationic pluronics, (D) a clathrate, (E) a complexing agent, (F) cetrimides, (G) an S-layer protein, or (H) methyl-glucamine; (iii) a pharmaceutically acceptable carrier or diluent, provided that when the chemical (ii) above is selected from (D) or (E), the biol. active agent is an agent which is capable of generating a protective immune response in an animal to which it is administered. The composition, which may be in the form of a solution or particles such as microspheres or liposomes, is particularly useful for mucosal administration of vaccines especially be the intra-nasal route or by parenteral routes. Mice were intranasally immunized with admixed F1 (5μg) and V (1μg) antigens of Yersinia pestis in conjunction with 2.5% cyclodextrin (I). Serum was analyzed on the day 14 for the presence of anti-V and anti-F1 IgG antibodies. I had significant absorption enhancer effects as compared to the controls.

L8 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2000:688044 CAPLUS
DN 133:271613
TI Particle based vaccine composition
IN Alpar, Hazire Oya; Williamson, Ethel Diane; Baillie, Leslie

William James
PA The Secretary of State for Defence, UK
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000056282	A1	20000928	WO 2000-GB1108	20000323
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2366613	A1	20000928	CA 2000-2366613	20000323
EP 1162945	A1	20011219	EP 2000-912780	20000323
EP 1162945	B1	20030806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002539237	T	20021119	JP 2000-606189	20000323
NZ 514322	A	20030328	NZ 2000-514322	20000323
AT 246491	T	20030815	AT 2000-912780	20000323
AU 765208	B2	20030911	AU 2000-34427	20000323
ES 2203436	T3	20040416	ES 2000-912780	20000323
US 2003171258	A1	20030911	US 2003-335906	20030102
PRAI GB 1999-6695	A	19990324		
WO 2000-GB1108	W	20000323		
US 2001-937065	B1	20010920		

AB A pharmaceutical composition which comprises microparticles comprising (1) a biol. active compound capable of generating an immune response in an animal to which it is administered which is protective against a pathogen; (2) a polymeric material capable of forming microspheres; and (3) an immunostimulant comprising a phospholipid. The composition is particularly useful for the oral administration of vaccines. An aqueous solution containing tetanus toxoid and polyvinyl alc. was microencapsulated using an organic phase containing poly(L-lactide) and lecithin in CH2Cl2.
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 25 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 2
AN 2000:290397 BIOSIS
DN PREV200000290397
TI Vaccines for plague.
AU Titball, Richard W. [Inventor, Reprint author]; Williamson, Ethel D. [Inventor]; Leary, Sophie E C [Inventor]; Oyston, Petra C F [Inventor]; Bennett, Alice M. [Inventor]
CS Salisbury, UK
ASSIGNEE: The Secretary of State for Defence in Her Britanic Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, UK
PI US 5985285 19991116
SO Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 16, 1999) Vol. 1228, No. 3. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 6 Jul 2000
Last Updated on STN: 7 Jan 2002
AB A method of protecting a human or animal body from the effects of infection with Y. pestis is provided comprising administering to the body

a vaccine including Yersinia pestis V antigen and Yersinia pestis F1 antigens or a protective epitopic part of each of these in a form other than whole Y. Pestis organisms. Preferably the antigens are administered in the form of a live vaccine or as recombinantly produced isolated and/or purified proteins. DNA encoding the whole or part of the F1 antigen and DNA encoding the whole or part of the V antigen may be used directly as a agnetic vaccine.

L8 ANSWER 19 OF 25 USPATFULL on STN
AN 1998:159759 USPATFULL
TI DNA encoding clostridium perfringens alpha-toxin peptides
IN Titball, Richard William, Salisbury, England
Williamson, Ethel Diane, Salisbury, England
PA The Secretary of State for Defence in Her Britannic Majesty's Government of the United Kingdom of Great Britain and Northern Ireland, London, England (non-U.S. government)
PI US 5851827 19981222
AI US 1996-725518 19961004 (8)
RLI Division of Ser. No. US 1994-341538, filed on 28 Nov 1994, now patented, Pat. No. US 5817317
PRAI GB 1992-10717 19920520
GB 1992-15655 19920723
DT Utility
FS Granted
EXNAM Primary Examiner: McKelvey, Terry A.
LREP Nixon & Vanderhye, P.C.
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 696
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides novel peptides and vaccines containing them capable or inducing production of antibodies directed against Clostridium perfringens alph-toxin (CPa) in animals to which the) arc administered and thereby providing pro-phylazis against infection by Clostridium pefringens and/or the alpha-toxin itself. Particularly the present invention provides such a vaccine that is relatively safe and simple to produce. e.g. by genetic engineering means. Preferred peptides comprise theo amino acid sequence of Clostridium perfringens alpha-toxin from amino acid 247 to 370 but lack the epitopes necessary for phos-pholipase C and/or sphingomyelin hydrolysing activity round between amino acids 1 to 240 of that sequence. Further provided are antisera and antibodies raised to the peptides and vaccines of the present invention, and particularly monoclonal antibodies and hybridoma cell lines for their production.

L8 ANSWER 20 OF 25 USPATFULL on STN
AN 1998:122078 USPATFULL
TI Clostridium perfringens vaccines
IN Titball, Richard William, Salisbury, England
Williamson, Ethel Diane, Salisbury, England
PA The Secretary of State for Defense of Great Britian & Northern Ireland, London, England (non-U.S. government)
PI US 5817317 19981006
WO 9323543 19931125
AI US 1994-341538 19941128 (8)
WO 1993-GB1039 19930520
19941128 PCT 371 date
19941128 PCT 102(e) date
PRAI GB 1992-10717 19920520
GB 1992-15655 19920723
DT Utility
FS Granted
EXNAM Primary Examiner: Caputa, Anthony C.

LREP Nixon & Vanderhye
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 656
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides novel peptides and vaccines containing them capable of inducing production of antibodies directed against Clostridium perfringens alpha-toxin (CPa) in animals to which they are administered and thereby providing prophylaxis against infection by Clostridium perfringens and/or the alpha-toxin itself. Particularly the present invention provides such a vaccine that is relatively safe and simple to produce. e.g. by genetic engineering means. Preferred peptides comprise theo amino acid sequence of Clostridium perfringens alpha-toxin from amino acid 247 to 370 but lack the epitopes necessary for phospholipase C and/or sphingomyelin hydrolysing activity found between amino acids 1 to 240 of that sequence. Further provided are antisera and antibodies raised to the peptides and vaccines of the present invention, and particularly monoclonal antibodies and hybridoma cell lines for their production.

L8 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1997:625611 CAPLUS
DN 127:277196
TI Analogs of the Clostridium perfringens ε-toxin for use in vaccines and their manufacture
IN Titball, Richard William; Williamson, Ethel Diane; Havard, Helen Louise; Oyston, Petra Claire Farquhar; Payne, Dean William
PA Secretary of State for Defence In Her Britannic Majesty's Gov. of the United Kingdom of Great Britain and Northern Ire, UK; Titball, Richard William; Williamson, Ethel Diane; Havard, Helen Louise; Oyston, Petra Claire Farquhar; Payne, Dean William
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9734001	A1	19970918	WO 1997-GB660	19970311
	W: AU, CA, GB, JP, NZ, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2248707	A1	19970918	CA 1997-2248707	19970311
	AU 9721037	A	19971001	AU 1997-21037	19970311
	AU 723535	B2	20000831		
	EP 888453	A1	19990107	EP 1997-906298	19970311
	EP 888453	B1	20040519		
	R: BE, DE, DK, ES, FR, GB, NL				
	NZ 331829	A	20000526	NZ 1997-331829	19970311
	JP 2000506386	T	20000530	JP 1997-532361	19970311
	ES 2217395	T3	20041101	ES 1997-906298	19970311
	US 6403094	B1	20020611	US 1998-142584	19980911
PRAI	GB 1996-5222	A	19960312		
	WO 1997-GB660	W	19970311		

AB Analogs of Clostridium perfringens ε-toxin capable of inducing protective antibodies against the toxin are described for protective use. Amino acid substitution of the essential histidine at position 106 reduces the toxicity of the protein without affecting the antigenicity of the protein are particularly preferred. An analog with His-106 substituted with proline was prepared as a fusion protein with glutathione-S-transferase by expression of the chimeric gene in Escherichia coli. Mice inoculated with the protein on days 1, 21 and 35 were challenged on day 54 with 10-103 LD50's of ε-toxin. Inoculated mice were fully protected up to 100 LD50's of ε-toxin.

L8 ANSWER 22 OF 25, CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:664948 CAPLUS
DN 125:299425
TI Vaccines against Yersinia pestis plague
IN Titball, Richard William; Williamson, Ethel Diane; Leary, Sophie Emma Clare; Oyston, Petra Claire Farquhar; Bennett, Alice Marie
PA Secretary of State for Defence, UK
SO PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9628551	A1	19960919	WO 1996-GB571	19960313
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	ZA 9602036	A	19960716	ZA 1996-2036	19960313
	CA 2215203	A1	19960919	CA 1996-2215203	19960313
	AU 9649511	A	19961002	AU 1996-49511	19960313
	AU 710181	B2	19990916		
	EP 815235	A1	19980107	EP 1996-905956	19960313
	EP 815235	B1	20030115		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
	CN 1184505	A	19980610	CN 1996-193850	19960313
	JP 11501654	T	19990209	JP 1996-527377	19960313
	JP 3813173	B2	20060823		
	RU 2197988	C2	20030210	RU 1997-116840	19960313
	AT 231184	T	20030215	AT 1996-905956	19960313
	ES 2185762	T3	20030501	ES 1996-905956	19960313
	PT 815235	T	20030630	PT 1996-905956	19960313
	US 5985285	A	19991116	US 1997-913477	19970915
PRAI	GB 1995-5059	A	19950313		
	GB 1995-18946	A	19950915		
	GB 1995-24825	A	19951205		
	WO 1996-GB571	W	19960313		

AB A vaccine including Yersinia pestis V antigen and F1 antigen or a protective epitopic part of each of these is provided to protect human and animals from plague caused by Y. Pestis. Preferably the antigens are administered in the form of a live vaccine or as recombinantly produced isolated and/or purified proteins. DNA encoding the whole or part of the F1 antigen and DNA encoding the whole or part of the V antigen may be used directly as a genetic vaccine. Production of attenuated Salmonella typhi for use as a vector in oral vaccine was shown. The vaccine is to induce local stimulation of the gut-associated lymphoid tissue and by trafficking of lymphocytes through the common mucosal immune system to provide a secondary stimulation of the bronchial associated lymphoid tissue such that a secretory IgA is achieved at the respiratory mucosal surface.

L8 ANSWER 23 OF 25, CAPLUS COPYRIGHT 2007 ACS on STN
AN 1995:973626 CAPLUS
DN 124:7053
TI oral vaccine compositions including microorganism transformed with plasmid encoding Yersinia pestis antigen
IN Titball, Richard William; Williamson, Ethel Diane; Leary, Sophie Emma Clare
PA United Kingdom Secretary for Defence, UK
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent

LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9524475	A1	19950914	WO 1995-GB481	19950306
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2184902	A1	19950914	CA 1995-2184902	19950306
AU 9518539	A	19950925	AU 1995-18539	19950306
EP 753061	A1	19970115	EP 1995-910622	19950306
EP 753061	B1	20050615		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
JP 09511139	T	19971111	JP 1995-523296	19950306
AT 297985	T	20050715	AT 1995-910622	19950306
PRAI GB 1994-4577	A	19940308		
WO 1995-GB481	W	19950306		

AB Novel DNA constructs are provided that are capable of transforming microorganisms such that they can be used as live or attenuated vaccines which induce such immune response at mucosal surfaces. Further provided are such transformed microorganisms per se and vaccine compns. containing them. Preferred constructs of the invention are capable of transforming microorganisms such that they express Yersinia pestis protein or a protective epitope fragment thereof while retaining a capability to establish themselves in human or animal gut environment. Several constructs have been identified that are capable of transforming gut dwelling organisms such as Salmonella typhimurium or S. typhi to enable V-protein antigen production

L8 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1995:806483 CAPLUS
DN 123:225923
TI Vaccine compositions comprising live Salmonella F1 antigen gene caf1 containing vectors for protection against Yersinia pestis infection
IN Titball, Richard William; Williamson, Ethel Diane; Leary, Sophie Emma Clare; Oyston, Petra Claire Farquhar; Howells, Angela
PA United Kingdom Secretary for Defence, UK
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9518231	A1	19950706	WO 1994-GB2818	19941223
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2179639	A1	19950706	CA 1994-2179639	19941223
AU 9513222	A	19950717	AU 1995-13222	19941223
EP 741786	A1	19961113	EP 1995-904620	19941223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
PRAI GB 1993-26425	A	19931224		
WO 1994-GB2818	W	19941223		

AB Novel DNA constructs are provided that are capable of transforming microorganisms such that they can be used as live or attenuated vaccines which induce such immune response at mucosal surfaces. Further provided

are such transformed microorganisms per se and vaccine compns. containing them. Preferred constructs of the invention are capable of transforming microorganisms such that they express F1 based protein while retaining a capability to establish themselves in human or animal gut environment. Several constructs have been identified that are capable of transforming gut dwelling organisms such as S. typhimurium or S. typhi to enable F1 antigen production, but most of these affect the organism such that it can no longer function effectively in the gut, at least in so far as it cannot express the antigen e.g. being unstable and losing plasmid.

L8 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1994:189726 CAPLUS
DN 120:189726
TI Manufacture of Clostridium perfringens α-toxin antigens for use in vaccines
IN Titball, Richard William; Williamson, Ethel Diane
PA Secretary of State for Defence of the United Kingdom, UK
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9323543	A1	19931125	WO 1993-GB1039	19930520
	W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9343342	A	19931213	AU 1993-43342	19930520
	AU 671838	B2	19960912		
	CN 1084407	A	19940330	CN 1993-107585	19930520
	CN 1057533	B	20001018		
	EP 642581	A1	19950315	EP 1993-913200	19930520
	EP 642581	B1	20021023		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	GB 2283020	A	19950426	GB 1994-22512	19930520
	GB 2283020	B	19960501		
	JP 07506725	T	19950727	JP 1993-520025	19930520
	JP 3370672	B2	20030127		
	AT 226635	T	20021115	AT 1993-913200	19930520
	PT 642581	T	20030331	PT 1993-913200	19930520
	ES 2185631	T3	20030501	ES 1993-913200	19930520
	IL 105763	A	20051120	IL 1993-105763	19930520
	ZA 9303574	A	19931213	ZA 1993-3574	19930521
	US 5817317	A	19981006	US 1994-341538	19941128
	US 5851827	A	19981222	US 1996-725518	19961004
PRAI	GB 1992-10717	A	19920520		
	GB 1992-15655	A	19920723		
	WO 1993-GB1039	A	19930520		
	US 1994-341538	A3	19941128		

AB Novel peptides and vaccines containing them capable of inducing production of antibodies directed against Clostridium perfringens α-toxin (CPa) are prepared for prophylactic use. The present invention provides a vaccine that is relatively safe and simple to produce, e.g. by genetic engineering means. Preferred peptides include are from the region of amino acids 240-370 of Clostridium perfringens α-toxin that therefore lack epitopes from the phospholipase C and/or sphingomyelin hydrolyzing activity found between amino acids 1 to 240. Further provided are antisera and antibodies raised to the peptides and vaccines of the present invention, and particularly monoclonal antibodies and hybridoma cell lines for their production A sequence encoding [247-350]-α-toxin was prepared from the gene by PCR and expressed using pBluescript; the antigen was manufactured as a fusion protein glutathione-S-transferase and the fusion

protein purified and cleaved by standard methods. The peptide did not have sphingomyelinase activity and did not cause hemolysis of mouse erythrocytes in vitro; injection of it 10 μg into a mouse did not cause death. The peptide reacted with antibody to whole toxin. Mice vaccinated with the peptide, or the fusion protein raised neutralizing antibodies and all resisted an i.p. challenge with toxin 10 μg. The.

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=> s (biodegradable microsphere?)
L9        3835 (BIODEGRADABLE MICROSPHERE?)

=> s l9 and vaccin?
L10       1484 L9 AND VACCIN?

=> s l10 and (vaccin?/ti or vaccin?/ab)
'AB' IS NOT A VALID FIELD CODE
'AB' IS NOT A VALID FIELD CODE
'AB' IS NOT A VALID FIELD CODE
L11        752 L10 AND (VACCIN?/TI OR VACCIN?/AB)

=> s l11 and (microsphere?/ti or microsphere?/ab)
'AB' IS NOT A VALID FIELD CODE
'AB' IS NOT A VALID FIELD CODE
'AB' IS NOT A VALID FIELD CODE
L12        416 L11 AND (MICROSPHERE?/TI OR MICROSPHERE?/AB)

=> s l12 and (biodegradable/ti or biodegradable/ab)
'AB' IS NOT A VALID FIELD CODE
'AB' IS NOT A VALID FIELD CODE
'AB' IS NOT A VALID FIELD CODE
L13        360 L12 AND (BIODEGRADABLE/TI OR BIODEGRADABLE/AB)

=> s l13 and biodegradable/ti
L14        197 L13 AND BIODEGRADABLE/TI

=> s l14 and microsphere?/ti
L15        181 L14 AND MICROSPHERE?/TI

=> s l15 and vaccin?/ti
L16        107 L15 AND VACCIN?/TI

=> s l16 and (anthracis or pestis or botulinum)
L17          7 L16 AND (ANTHRACIS OR PESTIS OR BOTULINUM)

=> dup rem l17
PROCESSING COMPLETED FOR L17
L18            1 DUP REM L17 (6 DUPLICATES REMOVED)

=> d

L18  ANSWER 1 OF 1  BIOSIS  COPYRIGHT (c) 2007 The Thomson Corporation  on STN
     DUPLICATE 1
AN   2000:405288  BIOSIS
DN   PREV200000405288
TI   Protection studies following bronchopulmonary and intramuscular
     immunisation with Yersinia pestis F1 and V subunit
     vaccines coencapsulated in biodegradable
     microspheres: A comparison of efficacy.
AU   Eyles, Jim E.; Williamson, E. Diane; Spiers, Ian D.; Alpar, H. Oya
     [Reprint author]
CS   Pharmaceutical Sciences, Life and Health Sciences, Aston University,
     Birmingham, B4 7ET, UK
SO   Vaccine, (1 August, 2000) Vol. 18, No. 28, pp. 3266-3271. print.
     CODEN: VACCDE. ISSN: 0264-410X.
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DT   Article
LA   English
ED   Entered STN: 20 Sep 2000
     Last Updated on STN: 8 Jan 2002


=> s l13 and (anthracis or pestis or botulinum)
L19        21 L13 AND (ANTHRACIS OR PESTIS OR BOTULINUM)

=> dup rem l19
PROCESSING COMPLETED FOR L19
L20         8 DUP REM L19 (13 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 8 ANSWERS - CONTINUE? Y/(N):y

L20  ANSWER 1 OF 8  USPATFULL on STN
AN     2006:280994  USPATFULL
TI     Pharmaceutical aerosol composition
IN     Eyles, James Edward, Wiltshire, UNITED KINGDOM
       Phillips, Gary John, Wiltshire, UNITED KINGDOM
       Maidment, Michael Patrick, Wiltshire, UNITED KINGDOM
       Williamson, Ethel Diane, Wiltshire, UNITED KINGDOM
PI     US 2006239931       A1  20061026
AI     US 2004-542449      A1  20040114 (10)
       WO 2004-GB104           20040114
                               20051213  PCT 371 date
PRAI   GB 2003-885         20030115
DT     Utility
FS     APPLICATION
LREP   JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET,
       ATLANTA, GA, 30309, US
CLMN   Number of Claims: 17
ECL    Exemplary Claim: 1
DRWN   3 Drawing Page(s)
LN.CNT 341
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     An aerosol formulation comprising a biodegradable
       microsphere comprising a non-living reagent, such as a sub-unit
       vaccine, that produces a protective immune response in a mammal
       to whom it is administered. Nebulizers and inhalers containing such
       formulations are also described and claimed.

L20  ANSWER 2 OF 8  CAPLUS  COPYRIGHT 2007 ACS on STN
AN   2004:610075  CAPLUS
DN   141:145719
TI   Pharmaceutical aerosol composition
IN   Eyles, James Edward; Phillips, Gary John; Maidment, Michael Patrick;
     Williamson, Ethel Diane
PA   The Secretary of State for Defence, UK
SO   PCT Int. Appl., 20 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
     --------------      ----   --------    --------------------    --------
PI   WO 2004062651        A1    20040729    WO 2004-GB104           20040114
     WO 2004062651        A8    20040930
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ
     AU 2004204392        A1    20040729    AU 2004-204392          20040114
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	CA 2513279	A1	20040729	CA 2004-2513279	20040114
	EP 1643979	A1	20060412	EP 2004-701996	20040114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
	JP 2006515354	T	20060525	JP 2006-500205	20040114
	US 2006239931	A1	20061026	US 2005-542449	20051213
PRAI	GB 2003-885	A	20030115		
	WO 2004-GB104	W	20040114		

AB An aerosol formulation comprising a biodegradable microsphere comprising a non-living reagent, such as a sub-unit vaccine, that produces a protective immune response in a mammal to whom it is administered is described. Nebulizers and inhalers containing such formulations are also described and claimed. For example, polylactide (Resomer L210) microspheres were loaded with either bovine serum albumin or recombinant V antigen (rV) from Yersinia pestis using a modified double-emulsion solvent evaporation process. Microspheres had a loading of 3.8% (BSA) and 3.3% (rV), and were capable of delivering antigen to the lung and lung lymph node by aerosolization.

L20 ANSWER 3 OF 8 SCISEARCH COPYRIGHT (c) 2007 The Thomson Corporation on STN

AN 2002:820586 SCISEARCH

GA The Genuine Article (R) Number: 597GB

TI On technological and immunological benefits of multivalent single-injection microsphere vaccines

AU Boehm G; Peyre M; Sesardic D; Huskisson R J; Mawas F; Douglas A; Xing D; Merkle H P; Gander B; Johansen P (Reprint)

CS Natl Inst Med Res, Mill Hill, London NW7 1AA, England (Reprint); Swiss Fed Inst Technol, Inst Pharmaceut Sci, CH-8057 Zurich, Switzerland; Natl Inst Biol Stand & Controls, Div Bacteriol, Potters Bar EN6 3QG, Herts, England

CYA England; Switzerland

SO PHARMACEUTICAL RESEARCH, (SEP 2002) Vol. 19, No. 9, pp. 1330-1336. ISSN: 0724-8741.

PB KLUWER ACADEMIC/PLENUM PUBL, 233 SPRING ST, NEW YORK, NY 10013 USA.

DT Article; Journal

LA English

REC Reference Count: 27

ED Entered STN: 25 Oct 2002
Last Updated on STN: 25 Oct 2002

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Purpose. With the aim of developing multivalent vaccines for single-injection, we examined the feasibility of combining antigens in biodegradable microspheres. Such vaccines are expected to improve vaccination coverage by reducing the number of vaccination sessions required to generate immunity.

Methods. Mono- and multivalent vaccines of Haemophilus influenzae type b (Hib) conjugate, diphtheria toxoid (DT), tetanus toxoid (TT), and pertussis toxin (PT) in poly (lactic acid) and poly(lactic-coglycolic acid) microspheres were prepared by spray drying, and the influence of coencapsulated antigens and excipients on antigen loading, release, and stability was examined. Two tetravalent formulations were tested in guinea pigs.

Results. Monovalent Hib and PT vaccines showed loading efficiencies of 10% (Hib) and 30% (PT) in both polymers. The loading efficiencies increased upon addition of trehalose and, even more, when the antigens were coencapsulated in di- and trivalent combinations. Highest loading efficiencies (>80%) were achieved with trivalent formulations (DT+PT+Hib) that also contained coencapsulated albumin. The percentage of antigen released during 24 h of incubation was typically 10-40% and decreased as loading efficiency increased. Enzyme-linked immunosorbent assay (ELISA) data revealed that TT, DT, and PT remained antigenic throughout the encapsulation and subsequent release processes. Finally, all antigens maintained their immunogenicity, since strong and sustained antibody responses were elicited after a single injection of tetravalent

microsphere vaccines (DT+TT+PT+Hib) in guinea pigs.
Conclusions. This study reveals technologic benefit as well as an immunological potential of multivalent single-injection microsphere vaccines. The results support our hypothesis that coencapsulation of several antigens may intrinsically improve entrapment of antigenic and immunogenic antigen probably by virtue of increased protein concentration during microencapsulation leading to mutual stabilization of the components.

L20 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:350510 CAPLUS
DN 138:112267
TI Systemic immune response elicited by injectable PLGA microspheres containing killed whole cell of Yersinia pestis through single-shot vaccination
AU Chiou, H. J.; Hu, C. S.; Chang, S. L.; Liang, C. C.; Hsu, H. L.
CS Institute of Preventive Medicine, National Defense Medical Center, Taipei, Taiwan
SO Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 2, 1075-1076
Publisher: Controlled Release Society, Minneapolis, Minn.
CODEN: 69CNY8
DT Conference
LA English
AB The only single-shot vaccine delivery system for Plague, a biodegradable microspheres, has been evaluated in the mice through three deliver routes, i.p., s.c., and i.m. This single-shot vaccine delivery formulation provides the repeated administration automatically. Poly lactide-co-glycolide microspheres have great potential as a novel vaccine delivery system for sustained release of protective antigen in preventive medicine.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
AN 2001:609476 CAPLUS
DN 136:345540
TI Intranasal vaccination against plague, tetanus and diphtheria
AU Alpar, H. O.; Eyles, J. E.; Williamson, E. D.; Somavarapu, S.
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SO Advanced Drug Delivery Reviews (2001), 51(1-3), 173-201
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PB Elsevier Science Ireland Ltd.
DT Journal; General Review
LA English
AB A review. Plague is an extremely virulent and potentially lethal infection caused by the bacterium Y. pestis. The current vaccine used to immunize against plague often fails to engender solid (100%) protection against inhalational infection with Y. pestis. Similarly, logistical factors favor the development of non-parenteral immunization protocols to counter plague. Recently an improved parenteral vaccination strategy for plague, based on the recombinant subunit approach, has entered clin. trials. The Yersinia pestis subunit antigens (F1 and V) have been successfully incorporated into novel vaccine delivery systems such as biodegradable microspheres composed of poly-l-(lactide) (PLLA). Intranasal and intratracheal administration of PLLA microencapsulated F1 and V serves to protect exptl. animals from inhalational and s.c. challenge with virulent Y. pestis bacilli. Liposomes have also been used to improve the immunogenicity of intranasally administered Y. pestis antigens, and the effectiveness of this approach to plague immunization has been evaluated. Tetanus and diphtheria still cause many deaths worldwide. The maintenance

of protective immunity to diphtheria and tetanus requires booster injections of the currently licensed toxoid vaccines. Consequently, many people remain unprotected. Improved coverage may well result from the development of effective non-invasive vaccines that could be readily distributed and potentially self-administered. To this end, the intranasal and inhalational routes of administration have been extensively investigated. Tetanus and diphtheria toxoids have been delivered intranasally to exptl. animals using a wide variety of adjuvants (enterotoxin derivs.), penetration enhancers (cyclodextrins, bile salts, surfactants, cationic polymers) and delivery systems (microspheres and liposomes). As compared with parenteral vaccination, nasal immunization has been shown favorably effective in small animal models, and a limited number of early phase clin. trials. As a caveat to this, adjuvantization of toxoid/subunit mols. appears to be a requisite for elicitation of appreciable immunol. responses, following nasal administration of acellular immunogens. Testing in larger animal models and humans is needed to ascertain if the promising results obtained in rodents can be reciprocated without compromising safety.

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DUPLICATE 2

AN 2000:405288 BIOSIS

DN PREV200000405288

TI Protection studies following bronchopulmonary and intramuscular immunisation with Yersinia pestis F1 and V subunit vaccines coencapsulated in biodegradable microspheres: A comparison of efficacy.

AU Eyles, Jim E.; Williamson, E. Diane; Spiers, Ian D.; Alpar, H. Oya [Reprint author]

CS Pharmaceutical Sciences, Life and Health Sciences, Aston University, Birmingham, B4 7ET, UK

SO Vaccine, (1 August, 2000) Vol. 18, No. 28, pp. 3266-3271. print.
CODEN: VACCDE. ISSN: 0264-410X.

DT Article

LA English

ED Entered STN: 20 Sep 2000
Last Updated on STN: 8 Jan 2002

AB We have compared the ability of intramuscularly and intratracheally administered recombinant F1 and V subunit antigens to safeguard mice from a lethal systemic challenge with plague. The combined subunits (1mug V plus 5 mug F1) were inoculated either in the 'free' state as a solution, or entrapped within microspheres composed of a biodegradable polyester (Poly-L-lactide), on day 1 and 60 of the experiment. In comparison to the other regimens, introduction of microsphere suspensions into the respiratory tract resulted in statistically elevated levels of specific immunoglobulins in day 82 lung wash samples. A subcutaneous challenge with virulent Yersinia pestis bacteria on day 137, equivalent to more than 105 mouse LD50s, was comparatively well tolerated by all subunit treatment groups (with survival rates between 66 and 90%). In contrast, 80% of the mice injected intramuscularly with soluble F1 and V were defeated by a 107 MLD50 subcutaneous challenge, whereas the group immunised intramuscularly with microparticles were significantly better protected ($p < 0.1$) with 50% survival. Similarly, mice immunised intratracheally with microparticles were significantly better safeguarded (56% survival) compared with the group immunised with soluble subunits intramuscularly ($p < 0.01$). Soluble sub-units delivered intratracheally afforded 33% protection against 107 MLD50s. These data indicate that bronchopulmonary administration of microsphere co-encapsulated recombinant F1 and V antigens elicits a similar level of protective immunity against systemic plague infection as that evoked by injecting co-encapsulated subunits into the muscle. Such findings corroborate the thesis that introduction of appropriately

formulated F1 and V subunits into the respiratory tract may be an alternative to parenteral immunisation schedules for protecting individuals from plague.

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DUPLICATE 3
AN 2000:123427 BIOSIS
DN PREV200000123427
TI Generation of protective immune responses to plague by mucosal administration of microsphere coencapsulated recombinant subunits.
AU Eyles, J. E.; Williamson, E. D.; Spiers, I. D.; Stagg, A. J.; Jones, S. M.; Alpar, H. O. [Reprint author]
CS Department of Pharmaceutical and Biological Sciences, Aston University, Birmingham, B4 7ET, UK
SO Journal of Controlled Release, (Jan. 3, 2000) Vol. 63, No. 1-2, pp. 191-200. print.
CODEN: JCREEC. ISSN: 0168-3659.
DT Article
LA English
ED Entered STN: 5 Apr 2000
Last Updated on STN: 3 Jan 2002
AB We have investigated noninvasive immunization to plague. Recombinant subunit antigens, F1 and V from Yersinia pestis, were coencapsulated in biodegradable poly(L-lactide) microspheres and intranasally administered to mice over a range of dose levels. Proteins retained antigenicity during, and postmicroencapsulation as evidenced by immunoblotting and capture enzyme-linked immunosorbent assay protocols. Supporting the rationale that a subunit antigen based vaccine for plague should contain both the F1 and V antigens, we observed that systemic antibody titres to V were improved by concomitant nasal immunization with F1. Conversely, serum titres to F1 were unaffected by the presence of V in the nasal inoculum. Interestingly, intramuscular injection of F1 augmented humoral immunity to nasally applied V antigen, suggesting that F1 adjuvantizes nasally instilled V even when introduced at a spatially distinct location. Although the magnitude of the specific serum response to nasally applied microspheres and equivalent doses of soluble subunits was not always directly proportional to administered dose and frequency of dosing, generally coencapsulated antigens evoked higher titred serum antibody responses. Also, when T-cell recall indices were measured they were found to be maximum in microsphere vaccinees. As few as two appropriately timed nasal inoculations of coencapsulated F1 and V afforded complete protection from >100 LD50's inhalational challenge with virulent Y. pestis. These data expand on previous findings from our laboratories, providing further insight into the mechanics of safeguarding mice from plague through nasal immunization. Further, these results demonstrate that in a murine model, solid protection from pneumonic plague can be engendered by two intranasal administrations of appropriately formulated recombinant proteins.

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DUPLICATE 4
AN 1998:511278 BIOSIS
DN PREV199800511278
TI Analysis of local and systemic immunological responses after intra-tracheal, intra-nasal and intra-muscular administration of microsphere co-encapsulated Yersinia pestis sub-unit vaccines.
AU Eyles, Jim E.; Spiers, Ian D.; Williamson, E. Diane; Alpar, H. Oya [Reprint author]
CS Dep. Pharm. Biological Sci., Aston Univ., Birmingham B4 7ET, UK
SO Vaccine, (Dec., 1998) Vol. 16, No. 20, pp. 2000-2009. print.
CODEN: VACCDE. ISSN: 0264-410X.

DT Article
LA English
ED Entered STN: 18 Dec 1998
Last Updated on STN: 18 Dec 1998
AB Intra-tracheal, intra-nasal and intramuscular immunization with admixed Y. pestis sub-units (3 mug V, 0.47 mug F1) or equivalent doses of poly-L-lactide microsphere co-encapsulated antigens was done. Systemic and mucosal responses to F1 and V differed according to immunization route, and encapsulated status of the sub-units. Irrespective of immunization site, particulated sub-units stimulated statistically superior primary systemic reactions, with intra-tracheal and nasal microsphere immunizations eliciting superior serum anti-V IgG titres in comparison to intramuscular injection of free vaccines ($p < 0.001$ beyond day 8). Pulmonary and nasal delivery of microspheres induced primary serum anti-V IgG titres which were greater ($p < 0.039$) or equal to ($p > 0.056$) those after intramuscular injection of spheres. In terms of serum anti-F1 titres, mice responded best to intramuscular, and comparatively poorly to intra-nasal immunizations. Intra-tracheal administration of microspheres induced strongest responses in the respiratory tract, dominated by the IgG rather than IgA isotype. An intra-nasal booster immunization on day 63 potentiated strong local and circulating anti-V IgG titres in microsphere vaccinees. Priming and boosting with free vaccines induced significantly depressed secondary serum anti-F1 titres relative to microsphere immunizations ($p < 0.024$ at days 78 and 120). In contrast to other priming sites, intratracheal instillation of encapsulated vaccines facilitated the induction of IgG antibody to both F1 and V in day 146 broncho-alveolal washings. With the exception of primary responses to F1 in mice immunized intra-tracheally with microspheres, IgG1 was the dominant subclass of anti-F1/V IgG in serum. We conclude that introduction of biodegradable microspheres containing the F1 and V subunits into to the upper or lower respiratory tract engenders immune responses of a magnitude comparable with that induced by parenteral immunization, and may present a means of protecting individuals from plague.